

Work Order ID 102910

102910

Page 1

June-12-13 9:16:33 AM

Item ID: 647.9315

Accept

N900040100

Setup Start *NS1*

Revision ID:

Stop *NS2*

Item Name: Receptacle Bracket

Start Date: 6/11/13 Start Qty: 10.00

10

Cust Item ID:

Required Date: 6/11/13 Req'd Qty: 10.00

10

Customer:

Reference:

Approvals: Process Plan: MLJ Date: 13-06-13

Tooling:

Date:

Run Start *NR1*

QC: Date:

SPC (Y/N):

Date:

Stop *NR2*

Sequence ID/ Work Center ID	Operation Description	Set-Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
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Draw Nbr

Revision Nbr

647.9300

110

0.00

110

Outsource5

Memo

0.00

Outsource process - Machining

ISSUE P/O: 20439

POSSIBLE SUPPLIER: ARCHER PRECISION

Certificate of conformaty required

CA/3/6/105 (10)

115

Receive & Inspect for Damage & Mat'l Certs

0.00

115

Packaging

Memo

0.00

Packaging

CA/3/12/105 (10)

117

QC6- Inspect dimensions to drawing

0.00

117

QC

Memo

0.00

Quality Control

DIS
2/1
1988
12/10/09

9-1 P/O 2
CA/1/18/105 (10)

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: <u>102910</u>	DISPOSITION Rework <input type="checkbox"/> Scrap <input type="checkbox"/> Use-as-is <input checked="" type="checkbox"/> Suspected Unapproved <input type="checkbox"/>	AGAINST DEPARTMENT/PROCESS			
Part No. <u>647, 9315</u>		Skid-tube <input type="checkbox"/>	Crosstube <input type="checkbox"/>	Water Jet <input type="checkbox"/>	Engineering <input type="checkbox"/>
NCR No. _____		Machining <input type="checkbox"/>	Small Fab <input type="checkbox"/>	Prod. Eng. Coord. <input type="checkbox"/>	Quality <input type="checkbox"/>
		Thermoforming <input type="checkbox"/>	Finishing <input type="checkbox"/>	Rec/Store/Packaging <input type="checkbox"/>	Other <input type="checkbox"/>
	Large Fab <input type="checkbox"/>	Composite <input type="checkbox"/>	Supplier <input checked="" type="checkbox"/>		

Root Cause	Date	Step	Qty	Description of work order update or non-conformance	Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector
Design									
Doc/Data									
Equip/Tooling									
Handling/Pre									
Material									
Operator									
Offset/Setup									
Process									
Supplier									
Training									
Transport									
Unapproved									

FAULT CATEGORY			
Landing Gear <input type="checkbox"/> Bending <input type="checkbox"/> Centre Not Concentric <input type="checkbox"/> Cracks <input type="checkbox"/> Crimp/Kink/Ripple/Wave <input type="checkbox"/> Cuffs <input type="checkbox"/> Crushing <input type="checkbox"/> Heat Treat <input type="checkbox"/> Inspection Strip in Tube <input type="checkbox"/> Marks/Chatter <input type="checkbox"/> Turning Sequence <input type="checkbox"/> Wave/Twist in Tube	General <input type="checkbox"/> Bend <input type="checkbox"/> BOM/Route <input type="checkbox"/> Broken/Damage/Defect <input type="checkbox"/> Burrs <input type="checkbox"/> Contamination <input type="checkbox"/> Countersink <input type="checkbox"/> Cut Too Short <input type="checkbox"/> Drawing <input type="checkbox"/> Drill Holes <input type="checkbox"/> Finish <input type="checkbox"/> Fit/Function	<input type="checkbox"/> Folio/Program <input type="checkbox"/> Grain <input type="checkbox"/> Hardware <input type="checkbox"/> Inspection Incomplete/Unqualified <input type="checkbox"/> Instructions Incomplete/Unclear <input type="checkbox"/> Misaligned/off center <input type="checkbox"/> Mislabeled <input type="checkbox"/> Misread <input type="checkbox"/> Off-set <input type="checkbox"/> Out of Calibration <input type="checkbox"/> Out of Sequence	<input type="checkbox"/> Outside Dimensions <input type="checkbox"/> Over/Under tolerance <input type="checkbox"/> Part Incorrect <input type="checkbox"/> Part Lost/Missing <input type="checkbox"/> Part Moved <input type="checkbox"/> Positioned Wrong <input type="checkbox"/> Power Loss/Surge <input type="checkbox"/> Pressure/Forced <input type="checkbox"/> Set-up <input type="checkbox"/> Temperature/Cure <input type="checkbox"/> Weld <input type="checkbox"/> Wrong Stock Pulled <input checked="" type="checkbox"/> Other <u>thrusting in hole</u>

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework <input type="checkbox"/> Scrap <input checked="" type="checkbox"/> Use-as-is <input type="checkbox"/> Suspected Unapproved <input type="checkbox"/>	AGAINST DEPARTMENT/PROCESS <table style="width:100%;"> <tr> <td>Skid-tube <input type="checkbox"/></td> <td>Crosstube <input type="checkbox"/></td> <td>Water Jet <input type="checkbox"/></td> <td>Engineering <input type="checkbox"/></td> </tr> <tr> <td>Machining <input type="checkbox"/></td> <td>Small Fab <input type="checkbox"/></td> <td>Prod. Eng. Coord. <input type="checkbox"/></td> <td>Quality <input type="checkbox"/></td> </tr> <tr> <td>Thermoforming <input type="checkbox"/></td> <td>Finishing <input type="checkbox"/></td> <td>Rec/Store/Packaging <input type="checkbox"/></td> <td>Other <input type="checkbox"/></td> </tr> <tr> <td>Large Fab <input type="checkbox"/></td> <td>Composite <input type="checkbox"/></td> <td>Supplier <input checked="" type="checkbox"/></td> <td></td> </tr> </table>	Skid-tube <input type="checkbox"/>	Crosstube <input type="checkbox"/>	Water Jet <input type="checkbox"/>	Engineering <input type="checkbox"/>	Machining <input type="checkbox"/>	Small Fab <input type="checkbox"/>	Prod. Eng. Coord. <input type="checkbox"/>	Quality <input type="checkbox"/>	Thermoforming <input type="checkbox"/>	Finishing <input type="checkbox"/>	Rec/Store/Packaging <input type="checkbox"/>	Other <input type="checkbox"/>	Large Fab <input type="checkbox"/>	Composite <input type="checkbox"/>	Supplier <input checked="" type="checkbox"/>	
Skid-tube <input type="checkbox"/>	Crosstube <input type="checkbox"/>	Water Jet <input type="checkbox"/>	Engineering <input type="checkbox"/>															
Machining <input type="checkbox"/>	Small Fab <input type="checkbox"/>	Prod. Eng. Coord. <input type="checkbox"/>	Quality <input type="checkbox"/>															
Thermoforming <input type="checkbox"/>	Finishing <input type="checkbox"/>	Rec/Store/Packaging <input type="checkbox"/>	Other <input type="checkbox"/>															
Large Fab <input type="checkbox"/>	Composite <input type="checkbox"/>	Supplier <input checked="" type="checkbox"/>																

Root Cause	Date	Step	Qty	Description of work order update or non-conformance	Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector	
Design	13/12/09	2	+1	Supplier Reports that	DAS 16 9-89 Q27042 13/12/09	Part Returned to DART	S 13/12/09	DAS 27 9-89 13/12/09	DAS 16 9-89 Q27042 13/12/09	
Doc/Data				1st Part in Batch scrap		to be scrap				
Equip/Tooling						Scrap Part OK				
Handling/Pre										
Material				Part was gouged due to tool						
Operator				1st set incorrect.						
Offset/Setup										
Process										
Supplier						Supplier was attacked				
Training						to v/u.				
Transport										
Unapproved										

FAULT CATEGORY

Landing Gear <input type="checkbox"/> Bending <input type="checkbox"/> Centre Not Concentric <input type="checkbox"/> Cracks <input type="checkbox"/> Crimp/Kink/Ripple/Wave <input type="checkbox"/> Cuffs <input type="checkbox"/> Crushing <input type="checkbox"/> Heat Treat <input type="checkbox"/> Inspection Strip in Tube <input type="checkbox"/> Marks/Chatter <input type="checkbox"/> Turning Sequence <input type="checkbox"/> Wave/Twist in Tube	General <input type="checkbox"/> Bend <input type="checkbox"/> BOM/Route <input type="checkbox"/> Broken/Damage/Defect <input type="checkbox"/> Burrs <input type="checkbox"/> Contamination <input type="checkbox"/> Countersink <input type="checkbox"/> Cut Too Short <input type="checkbox"/> Drawing <input type="checkbox"/> Drill Holes <input type="checkbox"/> Finish <input type="checkbox"/> Fit/Function	<input type="checkbox"/> Folio/Program <input type="checkbox"/> Grain <input type="checkbox"/> Hardware <input type="checkbox"/> Inspection Incomplete/Unqualified <input type="checkbox"/> Instructions Incomplete/Unclear <input type="checkbox"/> Misaligned/off center <input type="checkbox"/> Mislabeled <input type="checkbox"/> Misread <input type="checkbox"/> Off-set <input type="checkbox"/> Out of Calibration <input type="checkbox"/> Out of Sequence
<input type="checkbox"/> Outside Dimensions <input type="checkbox"/> Over/Under tolerance <input type="checkbox"/> Part Incorrect <input type="checkbox"/> Part Lost/Missing <input type="checkbox"/> Part Moved <input type="checkbox"/> Positioned Wrong <input type="checkbox"/> Power Loss/Surge		
<input type="checkbox"/> Pressure/Forced <input type="checkbox"/> Set-up <input type="checkbox"/> Temperature/Cure <input type="checkbox"/> Weld <input type="checkbox"/> Wrong Stock Pulled <input type="checkbox"/> Other		

Work Order ID 102910

102910

Page 2

June-12-13 9:16:33 AM

Item ID: 647.9315 Accept *N900040100* Setup Start *NS1*
 Revision ID: Stop *NS2*
 Item Name: Receptacle Bracket
 Start Date: 6/11/13 Start Qty: 10.00 *10* Cust Item ID:
 Required Date: 6/11/13 Req'd Qty: 10.00 *10* Customer:
 Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____ Run Start *NR1*
 QC: _____ Date: _____ SPC (Y/N): _____ Date: _____ Stop *NR2*

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
118		0.00							
118									
HandFinish	Memo	0.00							
Hand Finishing	REMOVE ALL PART MARKINGS			N/A					
120	Outsource process-Anodize per QSI017 4.1.10.1	0.00							
120									
Outsource4	Memo	0.00							
Outsource process - Anodize	Issue P/O to ATG : 22353								
	1- Black Anodize as per Dwg 647.9300								
	2- PRIME AS PER DWG, SEE NOTE #2								
	Certification of Conformity is required								
130	Receive & Inspect for Damage & Mat'l Certs	0.00							
130									
Packaging	Memo	0.00							
Packaging									

12/11/11 (9)
 CX # 22353

9x SP14-1-9.

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework <input type="checkbox"/> Scrap <input type="checkbox"/> Use-as-is <input type="checkbox"/> Suspected Unapproved <input type="checkbox"/>	AGAINST DEPARTMENT/PROCESS <table style="width: 100%;"> <tr> <td>Skid-tube <input type="checkbox"/></td> <td>Crosstube <input type="checkbox"/></td> <td>Water Jet <input type="checkbox"/></td> <td>Engineering <input type="checkbox"/></td> </tr> <tr> <td>Machining <input type="checkbox"/></td> <td>Small Fab <input type="checkbox"/></td> <td>Prod. Eng. Coord. <input type="checkbox"/></td> <td>Quality <input type="checkbox"/></td> </tr> <tr> <td>Thermoforming <input type="checkbox"/></td> <td>Finishing <input type="checkbox"/></td> <td>Rec/Store/Packaging <input type="checkbox"/></td> <td>Other <input type="checkbox"/></td> </tr> <tr> <td>Large Fab <input type="checkbox"/></td> <td>Composite <input type="checkbox"/></td> <td>Supplier <input type="checkbox"/></td> <td></td> </tr> </table>	Skid-tube <input type="checkbox"/>	Crosstube <input type="checkbox"/>	Water Jet <input type="checkbox"/>	Engineering <input type="checkbox"/>	Machining <input type="checkbox"/>	Small Fab <input type="checkbox"/>	Prod. Eng. Coord. <input type="checkbox"/>	Quality <input type="checkbox"/>	Thermoforming <input type="checkbox"/>	Finishing <input type="checkbox"/>	Rec/Store/Packaging <input type="checkbox"/>	Other <input type="checkbox"/>	Large Fab <input type="checkbox"/>	Composite <input type="checkbox"/>	Supplier <input type="checkbox"/>	
Skid-tube <input type="checkbox"/>	Crosstube <input type="checkbox"/>	Water Jet <input type="checkbox"/>	Engineering <input type="checkbox"/>															
Machining <input type="checkbox"/>	Small Fab <input type="checkbox"/>	Prod. Eng. Coord. <input type="checkbox"/>	Quality <input type="checkbox"/>															
Thermoforming <input type="checkbox"/>	Finishing <input type="checkbox"/>	Rec/Store/Packaging <input type="checkbox"/>	Other <input type="checkbox"/>															
Large Fab <input type="checkbox"/>	Composite <input type="checkbox"/>	Supplier <input type="checkbox"/>																

Root Cause	Date	Step	Qty	Description of work order update or non-conformance	Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector
Design									
Doc/Data									
Equip/Tooling									
Handling/Pre									
Material									
Operator									
Offset/Setup									
Process									
Supplier									
Training									
Transport									
Unapproved									

FAULT CATEGORY

Landing Gear <input type="checkbox"/> Bending <input type="checkbox"/> Centre Not Concentric <input type="checkbox"/> Cracks <input type="checkbox"/> Crimp/Kink/Ripple/Wave <input type="checkbox"/> Cuffs <input type="checkbox"/> Crushing <input type="checkbox"/> Heat Treat <input type="checkbox"/> Inspection Strip in Tube <input type="checkbox"/> Marks/Chatter <input type="checkbox"/> Turning Sequence <input type="checkbox"/> Wave/Twist in Tube	General <input type="checkbox"/> Bend <input type="checkbox"/> BOM/Route <input type="checkbox"/> Broken/Damage/Defect <input type="checkbox"/> Burrs <input type="checkbox"/> Contamination <input type="checkbox"/> Countersink <input type="checkbox"/> Cut Too Short <input type="checkbox"/> Drawing <input type="checkbox"/> Drill Holes <input type="checkbox"/> Finish <input type="checkbox"/> Fit/Function	<input type="checkbox"/> Folio/Program <input type="checkbox"/> Grain <input type="checkbox"/> Hardware <input type="checkbox"/> Inspection Incomplete/Unqualified <input type="checkbox"/> Instructions Incomplete/Unclear <input type="checkbox"/> Misaligned/off center <input type="checkbox"/> Mislabeled <input type="checkbox"/> Misread <input type="checkbox"/> Off-set <input type="checkbox"/> Out of Calibration <input type="checkbox"/> Out of Sequence	<input type="checkbox"/> Outside Dimensions <input type="checkbox"/> Over/Under tolerance <input type="checkbox"/> Part Incorrect <input type="checkbox"/> Part Lost/Missing <input type="checkbox"/> Part Moved <input type="checkbox"/> Positioned Wrong <input type="checkbox"/> Power Loss/Surge <input type="checkbox"/> Pressure/Forced <input type="checkbox"/> Set-up <input type="checkbox"/> Temperature/Cure <input type="checkbox"/> Weld <input type="checkbox"/> Wrong Stock Pulled <input type="checkbox"/> Other
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Work Order ID 102910

102910

Page 3

June-12-13 9:16:33 AM

Item ID: 647.9315 Accept *N900040100* Setup Start *NS1*
 Revision ID: Stop *NS2*
 Item Name: Receptacle Bracket
 Start Date: 6/11/13 Start Qty: 10.00 *10* Cust Item ID:
 Required Date: 6/11/13 Req'd Qty: 10.00 *10* Customer:
 Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____ Run Start *NR1*
 QC: _____ Date: _____ SPC (Y/N): _____ Date: _____ Stop *NR2*

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
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140	QC5- Inspect part completeness to step on W/O	0.00				9			MA 14-01-13
140									
QC	Memo	0.00							

Quality Control

180	Identify as per dwg & Stock Location: 51416	0.00				9X	DAS 28 9-89	14-01-14	
180									
Packaging	Memo	0.00							

Packaging ***IDENTIFY AS PER APICAL MPP-120 BY STAMPING P# AND REV***

190	QC21- Final Inspection - Work Order Release	0.00							
190									
QC	Memo	0.00							

Quality Control

14-01-15
 14-01-14

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework <input type="checkbox"/> Scrap <input type="checkbox"/> Use-as-is <input type="checkbox"/> Suspected Unapproved <input type="checkbox"/>	AGAINST DEPARTMENT/PROCESS <table style="width:100%;"> <tr> <td>Skid-tube <input type="checkbox"/></td> <td>Crosstube <input type="checkbox"/></td> <td>Water Jet <input type="checkbox"/></td> <td>Engineering <input type="checkbox"/></td> </tr> <tr> <td>Machining <input type="checkbox"/></td> <td>Small Fab <input type="checkbox"/></td> <td>Prod. Eng. Coord. <input type="checkbox"/></td> <td>Quality <input type="checkbox"/></td> </tr> <tr> <td>Thermoforming <input type="checkbox"/></td> <td>Finishing <input type="checkbox"/></td> <td>Rec/Store/Packaging <input type="checkbox"/></td> <td>Other <input type="checkbox"/></td> </tr> <tr> <td>Large Fab <input type="checkbox"/></td> <td>Composite <input type="checkbox"/></td> <td>Supplier <input type="checkbox"/></td> <td></td> </tr> </table>	Skid-tube <input type="checkbox"/>	Crosstube <input type="checkbox"/>	Water Jet <input type="checkbox"/>	Engineering <input type="checkbox"/>	Machining <input type="checkbox"/>	Small Fab <input type="checkbox"/>	Prod. Eng. Coord. <input type="checkbox"/>	Quality <input type="checkbox"/>	Thermoforming <input type="checkbox"/>	Finishing <input type="checkbox"/>	Rec/Store/Packaging <input type="checkbox"/>	Other <input type="checkbox"/>	Large Fab <input type="checkbox"/>	Composite <input type="checkbox"/>	Supplier <input type="checkbox"/>	
Skid-tube <input type="checkbox"/>	Crosstube <input type="checkbox"/>	Water Jet <input type="checkbox"/>	Engineering <input type="checkbox"/>															
Machining <input type="checkbox"/>	Small Fab <input type="checkbox"/>	Prod. Eng. Coord. <input type="checkbox"/>	Quality <input type="checkbox"/>															
Thermoforming <input type="checkbox"/>	Finishing <input type="checkbox"/>	Rec/Store/Packaging <input type="checkbox"/>	Other <input type="checkbox"/>															
Large Fab <input type="checkbox"/>	Composite <input type="checkbox"/>	Supplier <input type="checkbox"/>																

Root Cause	Date	Step	Qty	Description of work order update or non-conformance	Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector
Design <input type="checkbox"/>									
Doc/Data <input type="checkbox"/>									
Equip/Tooling <input type="checkbox"/>									
Handling/Pre <input type="checkbox"/>									
Material <input type="checkbox"/>									
Operator <input type="checkbox"/>									
Offset/Setup <input type="checkbox"/>									
Process <input type="checkbox"/>									
Supplier <input type="checkbox"/>									
Training <input type="checkbox"/>									
Transport <input type="checkbox"/>									
Unapproved <input type="checkbox"/>									

FAULT CATEGORY

Landing Gear <input type="checkbox"/> Bending <input type="checkbox"/> Centre Not Concentric <input type="checkbox"/> Cracks <input type="checkbox"/> Crimp/Kink/Ripple/Wave <input type="checkbox"/> Cuffs <input type="checkbox"/> Crushing <input type="checkbox"/> Heat Treat <input type="checkbox"/> Inspection Strip in Tube <input type="checkbox"/> Marks/Chatter <input type="checkbox"/> Turning Sequence <input type="checkbox"/> Wave/Twist in Tube	General <input type="checkbox"/> Bend <input type="checkbox"/> BOM/Route <input type="checkbox"/> Broken/Damage/Defect <input type="checkbox"/> Burrs <input type="checkbox"/> Contamination <input type="checkbox"/> Countersink <input type="checkbox"/> Cut Too Short <input type="checkbox"/> Drawing <input type="checkbox"/> Drill Holes <input type="checkbox"/> Finish <input type="checkbox"/> Fit/Function	<input type="checkbox"/> Folio/Program <input type="checkbox"/> Grain <input type="checkbox"/> Hardware <input type="checkbox"/> Inspection Incomplete/Unqualified <input type="checkbox"/> Instructions Incomplete/Unclear <input type="checkbox"/> Misaligned/off center <input type="checkbox"/> Mislabeled <input type="checkbox"/> Misread <input type="checkbox"/> Off-set <input type="checkbox"/> Out of Calibration <input type="checkbox"/> Out of Sequence	<input type="checkbox"/> Outside Dimensions <input type="checkbox"/> Over/Under tolerance <input type="checkbox"/> Part Incorrect <input type="checkbox"/> Part Lost/Missing <input type="checkbox"/> Part Moved <input type="checkbox"/> Positioned Wrong <input type="checkbox"/> Power Loss/Surge <input type="checkbox"/> Pressure/Forced Set-up <input type="checkbox"/> Temperature/Cure <input type="checkbox"/> Weld <input type="checkbox"/> Wrong Stock Pulled <input type="checkbox"/> Other
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Picklist Print

June-12-13 9:16:33 AM

Work Order ID: 102910
 Parent Item: 647.9315
 Parent Item Name: Receptacle Bracket

Start Date: 6/11/13 Required Date: 6/11/13
 Start Qty: 10.00 Required Qty: 10.00

Comments: IPP REV:A NEW ISSUE 12-11-19 JLM VERIFIED BY:DD

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
647.9315P Receptacle Bracket		Purchased	No				Each	0.0000		10		6/12/13	(10)
M7075T6B3.000X7.500 7075-T6 BAR 3.000" X 7.500" (order in billets)		Purchased	No				f	44.9720		6.2			

6.25" Long

Location	Loc Qty	Loc Code
MAT049	44.972	
124030	12.75	
<u>124383</u>	8.142	
124412	24.08	

6.2

JFL 2013-06-20

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework <input type="checkbox"/> Scrap <input type="checkbox"/> Use-as-is <input type="checkbox"/> Suspected Unapproved <input type="checkbox"/>	AGAINST DEPARTMENT/PROCESS <table style="width: 100%;"> <tr> <td>Skid-tube <input type="checkbox"/></td> <td>Crosstube <input type="checkbox"/></td> <td>Water Jet <input type="checkbox"/></td> <td>Engineering <input type="checkbox"/></td> </tr> <tr> <td>Machining <input type="checkbox"/></td> <td>Small Fab <input type="checkbox"/></td> <td>Prod. Eng. Coord. <input type="checkbox"/></td> <td>Quality <input type="checkbox"/></td> </tr> <tr> <td>Thermoforming <input type="checkbox"/></td> <td>Finishing <input type="checkbox"/></td> <td>Rec/Store/Packaging <input type="checkbox"/></td> <td>Other <input type="checkbox"/></td> </tr> <tr> <td>Large Fab <input type="checkbox"/></td> <td>Composite <input type="checkbox"/></td> <td>Supplier <input type="checkbox"/></td> <td></td> </tr> </table>	Skid-tube <input type="checkbox"/>	Crosstube <input type="checkbox"/>	Water Jet <input type="checkbox"/>	Engineering <input type="checkbox"/>	Machining <input type="checkbox"/>	Small Fab <input type="checkbox"/>	Prod. Eng. Coord. <input type="checkbox"/>	Quality <input type="checkbox"/>	Thermoforming <input type="checkbox"/>	Finishing <input type="checkbox"/>	Rec/Store/Packaging <input type="checkbox"/>	Other <input type="checkbox"/>	Large Fab <input type="checkbox"/>	Composite <input type="checkbox"/>	Supplier <input type="checkbox"/>	
Skid-tube <input type="checkbox"/>	Crosstube <input type="checkbox"/>	Water Jet <input type="checkbox"/>	Engineering <input type="checkbox"/>															
Machining <input type="checkbox"/>	Small Fab <input type="checkbox"/>	Prod. Eng. Coord. <input type="checkbox"/>	Quality <input type="checkbox"/>															
Thermoforming <input type="checkbox"/>	Finishing <input type="checkbox"/>	Rec/Store/Packaging <input type="checkbox"/>	Other <input type="checkbox"/>															
Large Fab <input type="checkbox"/>	Composite <input type="checkbox"/>	Supplier <input type="checkbox"/>																

Root Cause	Date	Step	Qty	Description of work order update or non-conformance	Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector
Design									
Doc/Data									
Equip/Tooling									
Handling/Pre									
Material									
Operator									
Offset/Setup									
Process									
Supplier									
Training									
Transport									
Unapproved									

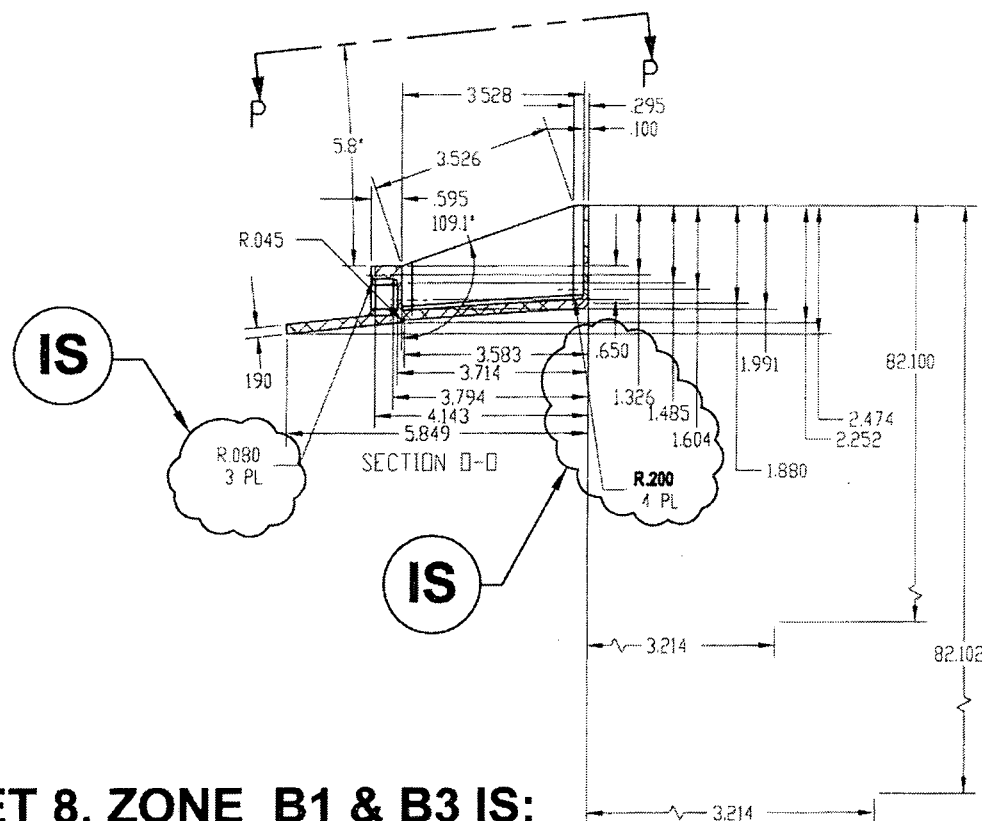
FAULT CATEGORY

Landing Gear <input type="checkbox"/> Bending <input type="checkbox"/> Centre Not Concentric <input type="checkbox"/> Cracks <input type="checkbox"/> Crimp/Kink/Ripple/Wave <input type="checkbox"/> Cuffs <input type="checkbox"/> Crushing <input type="checkbox"/> Heat Treat <input type="checkbox"/> Inspection Strip in Tube <input type="checkbox"/> Marks/Chatter <input type="checkbox"/> Turning Sequence <input type="checkbox"/> Wave/Twist in Tube	General <input type="checkbox"/> Bend <input type="checkbox"/> BOM/Route <input type="checkbox"/> Broken/Damage/Defect <input type="checkbox"/> Burrs <input type="checkbox"/> Contamination <input type="checkbox"/> Countersink <input type="checkbox"/> Cut Too Short <input type="checkbox"/> Drawing <input type="checkbox"/> Drill Holes <input type="checkbox"/> Finish <input type="checkbox"/> Fit/Function	<input type="checkbox"/> Folio/Program <input type="checkbox"/> Grain <input type="checkbox"/> Hardware <input type="checkbox"/> Inspection Incomplete/Unqualified <input type="checkbox"/> Instructions Incomplete/Unclear <input type="checkbox"/> Misaligned/off center <input type="checkbox"/> Mislabeled <input type="checkbox"/> Misread <input type="checkbox"/> Off-set <input type="checkbox"/> Out of Calibration <input type="checkbox"/> Out of Sequence	<input type="checkbox"/> Outside Dimensions <input type="checkbox"/> Over/Under tolerance <input type="checkbox"/> Part Incorrect <input type="checkbox"/> Part Lost/Missing <input type="checkbox"/> Part Moved <input type="checkbox"/> Positioned Wrong <input type="checkbox"/> Power Loss/Surge <input type="checkbox"/> Pressure/Forced <input type="checkbox"/> Set-up <input type="checkbox"/> Temperature/Cure <input type="checkbox"/> Weld <input type="checkbox"/> Wrong Stock Pulled <input type="checkbox"/> Other
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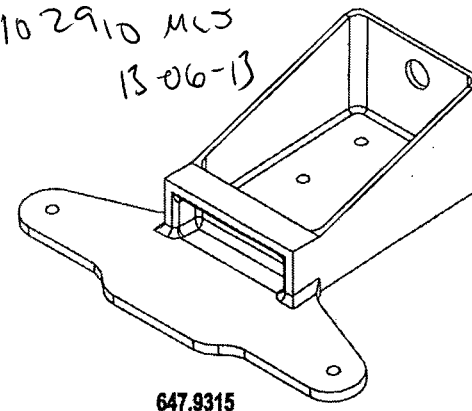
APICAL INDUSTRIES, INC.	ENGINEERING CHANGE NOTICE NO. 03706				SHEET 1 OF 2	
	DWG NO. 647.9300	REV: N/C	PREPARED BY B. PETERS	DATE: 11/16/12	EFFECT ON DWG <input type="checkbox"/> INC. <input checked="" type="checkbox"/> UNINC.	
	DWG TITLE: BRACKETS					
APPROVED BY: ENGR <i>[Signature]</i>		MFG <i>[Signature]</i>	QC <i>[Signature]</i>	EFF: NEXT ORDER		
TRANSACTION CODES (TC): A-ADD C-CREATE R-REVISE D-DELETE		REASON: REVISED RADII ON 647.9315.			ECR: D-12-012	

SHEET 1, ZONE B4, NOTE 10 IS:

10 PART DIMENSIONS CONTROLLED BY CAD MODEL FILE: 647.9315 RECEPTACLE BRACKET.SLDPRT, LAST MODIFIED 11-16-12.



102910 MLC
13-06-13



SHEET 8, ZONE A7 IS:

SHEET 8, ZONE B1 & B3 IS:

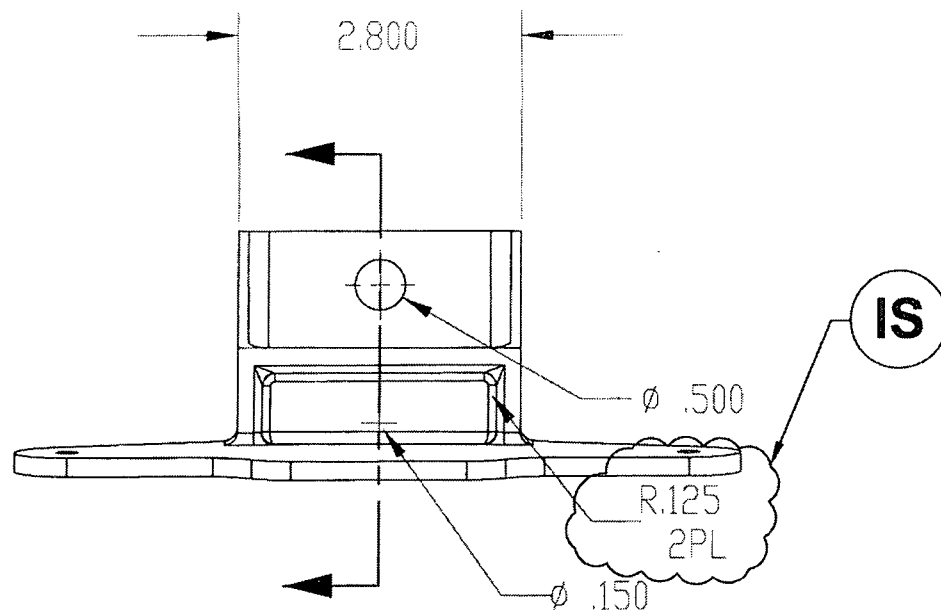
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102910

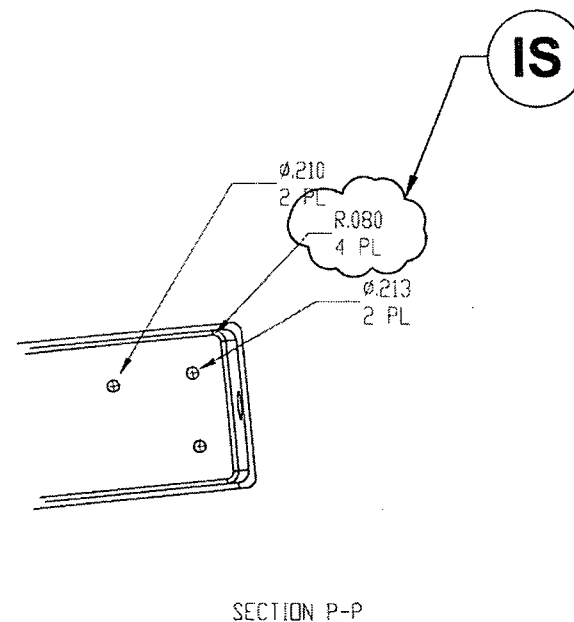
APICAL INDUSTRIES, INC.

ENGINEERING CHANGE ORDER NO. 03706

SHEET 2 OF 2



SHEET 8, ZONE B6 IS:



SHEET 8, ZONE B8 IS:

F/N	TC	PART NUMBER	QTY	DESCRIPTION	MATERIAL/SPECIFICATION
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APICAL
INDUSTRIES, INC.

SHEET 1 OF 2

DWG NO. 647.9300

REV: N/C

PREPARED
BY A. QUAN

DATE: 11/09/11

EFFECT ON DWG
☐ INC. ☒ UNINC.

DWG TITLE: BRACKET

APPROVED BY:

ENGR

MFG

QC

EFF:

CURRENT ORDER AND STOCK

TRANSACTION CODES (TC):
A-ADD C-CREATE
R-REVISE D-DELETE

REASON: REVISED HOLE LOCATIONS ON 647.9314, ADDED HOLE 647.9315

SHEET 1, ZONE B3:

NOTES: UNLESS OTHERWISE SPECIFIED:

1. MATERIAL: ALUMINUM 7073-T651 PER AMS-QQ-A-230/12

2. FINISH: HARD ANODIZE IAW N1L-A-8825 TYPE III, CLASS 2, COLOR: BLACK;
PRETREAT PR-148 ADHESION PROMOTER, PRIME IAW N1L-P-23377J TYPE I, CLASS N

2. FILED AND BREAK ALL SHARP EDGES

4 IDENTIFY JAW MPP-120. LASER ENGRAVE CENTURY GOTHIC, 12 POINT P/N AND REVISION

△ PART DIMENSIONS CONTROLLED BY CAD MODEL FILE: 6429310 LH BRACKET SLDRPT. LAST MODIFIED 06-22-10

△ PART DIMENSIONS CONTROLLED BY CAD MODEL FILE: 6479301 SUPPORT BRACKET SUPPRT, LAST MODIFIED 06-22-10

▲ PART DIMENSIONS CONTROLLED BY CAD MODEL FILE: 6479312-BRACKETSLEGRY, LAST MODIFIED 06-22-10

8. PART DIMENSIONS CONTROLLER BY CAD MODEL FILE: 0479313 BRACKET.DWG.PRT, LAST MODIFIED 06-22-00

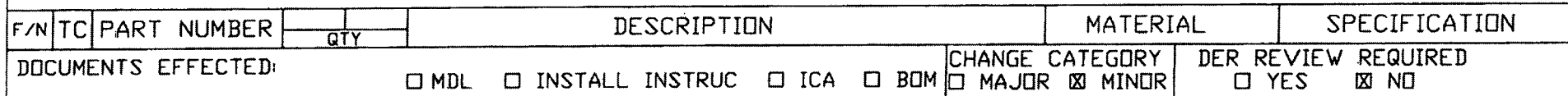
9. PART DIMENSIONS CONTROLLED BY CAD MODEL FILE 6479314 RETAINER BRACKET.SLDPRJ. LAST MODIFIED 09-26-11

10 PART DIMENSIONS CONTROLLED BY CAD MODEL FILE: 647.9315 RECEPTACLE BRACKET.SLDPRT, LAST MODIFIED 10-19-11

ALL PART DIMENSIONS CONTROLLED BY END MODEL FILE: 647.9916 CROSSBAR BRACKET SLDPR1, LAST MODIFIED 06/11/2014

PART DIMENSIONS CONTROLLED BY CAD MODEL FILE 647.9317 RH BRACKET.SLDPR1, LAST MODIFIED 06-22-10

SHEET 7, ZONE B4:



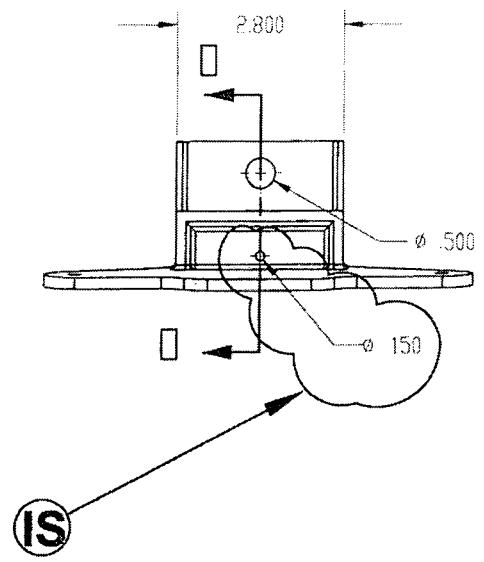
102910

APICAL INDUSTRIES, INC.

ENGINEERING CHANGE NOTICE NO. 03209

SHEET 2 OF 2

SHEET 8, ZONE B5:



F/N	TC	PART NUMBER	QTY	DESCRIPTION	MATERIAL	SPECIFICATION

102910

NOTES: UNLESS OTHERWISE SPECIFIED

1. MATERIAL: ALUMINUM 7075-T651 PER AMS-QQ-A-250/12.
2. FINISH: HARD ANODIZE IAW MIL-A-8625 TYPE III, CLASS 2, COLOR: BLACK;
PRETREAT PR-148 ADHESION PROMOTER, PRIME IAW MIL-P-23377 J TYPE I, CLASS N.
3. DEBURR AND BREAK ALL SHARP EDGES.
4. IDENTIFY IAW MPP-120. LASER ENGRAVE CENTURY GOTHIC, 12 POINT P/N AND REVISION.
5. PART DIMENSIONS CONTROLLED BY CAD MODEL FILE: 647.9310 LH BRACKET.SLDPRT, LAST MODIFIED 06-22-10.
6. PART DIMENSIONS CONTROLLED BY CAD MODEL FILE: 647.9311 SUPPORT BRACKET.SLDPRT, LAST MODIFIED 06-22-10.
7. PART DIMENSIONS CONTROLLED BY CAD MODEL FILE: 647.9312 BRACKET.SLDPRT, LAST MODIFIED 06-22-10.
8. PART DIMENSIONS CONTROLLED BY CAD MODEL FILE: 647.9313 BRACKET.SLDPRT, LAST MODIFIED 06-22-10.
9. PART DIMENSIONS CONTROLLED BY CAD MODEL FILE: 647.9314 RETAINER BRACKET.SLDPRT, LAST MODIFIED 06-22-10.
10. PART DIMENSIONS CONTROLLED BY CAD MODEL FILE: 647.9315 RECEPTACLE BRACKET.SLDPRT, LAST MODIFIED 06-22-10.
11. PART DIMENSIONS CONTROLLED BY CAD MODEL FILE: 647.9316 CROSSBAR BRACKET.SLDPRT, LAST MODIFIED 06-22-10.
12. PART DIMENSIONS CONTROLLED BY CAD MODEL FILE: 647.9317 RH BRACKET.SLDPRT, LAST MODIFIED 06-22-10.

UNINCORPORATED ECN(s)

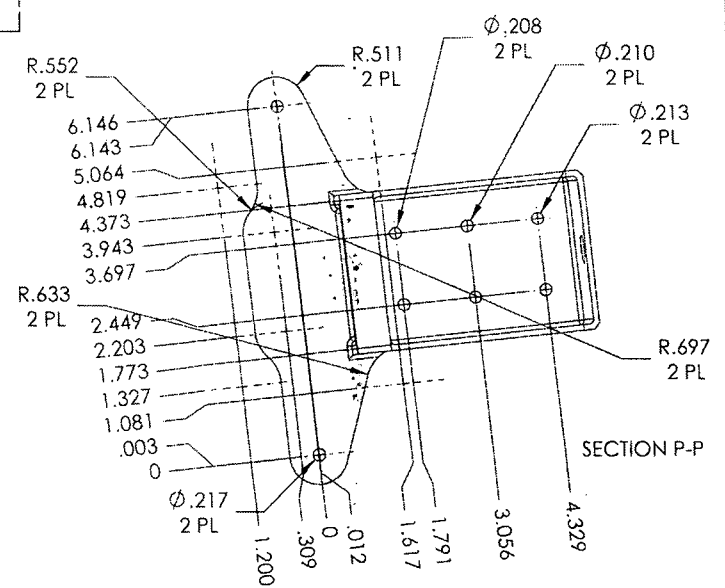
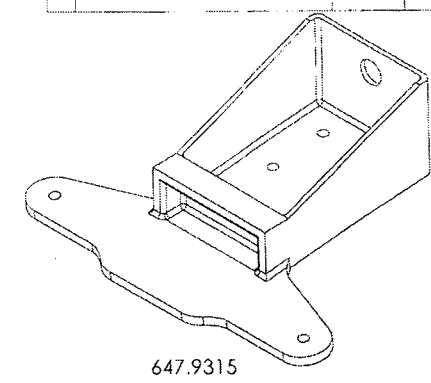
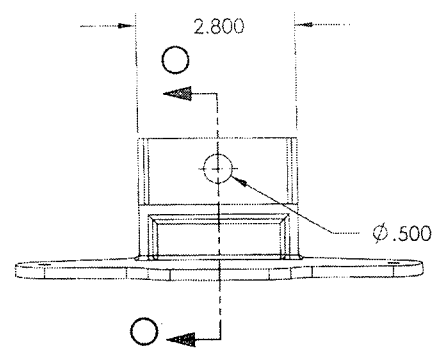
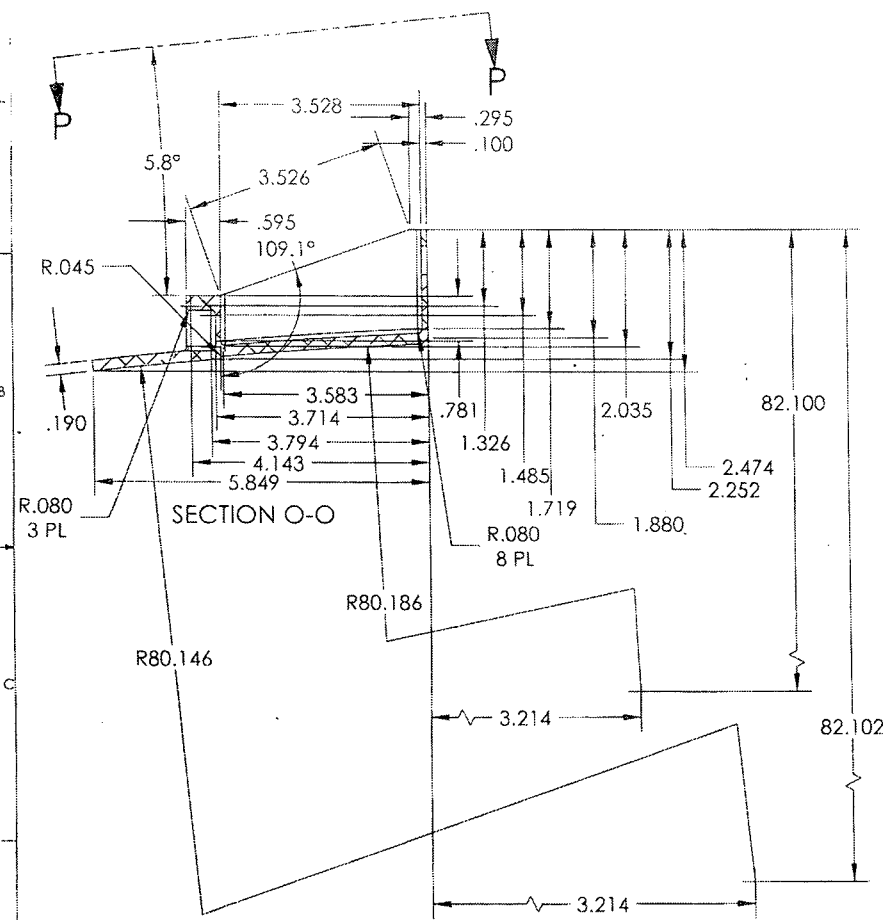
03209, 03706

		647.9317	RH BRACKET	△1	△2 △3
		647.9316	CROSSBAR BRACKET	△1	△2 △3
		647.9315	RECEPTACLE BRACKET	△1	△2 △3
		647.9314	RETAINER BRACKET	△1	△2 △3
		647.9313	BRACKET	△1	△2 △3
		647.9312	BRACKET	△1	△2 △3
		647.9311	SUPPORT BRACKET	△1	△2 △3
		647.9310	LH BRACKET	△1	△2 △3
	FIND #	PART #	DESCRIPTION	MAT'L	SPEC.
QTY	PARTS LIST				
NEXT ASSY (S)	<div> <div> <small>ORIGINATOR DATE</small> <small>DATE DESIGNED BY</small> <small>DATE DRAWN BY</small> <small>DATE CHECKED BY</small> <small>DATE APPROVED BY</small> <small>DATE TO CONSTRUCTION</small> </div> <div> <small>DESIGNED BY</small> <small>CHECKED BY</small> <small>APPROVED BY</small> <small>DATE TO CONSTRUCTION</small> </div> </div>				
647.8900	<div> <div> <small>UNLESS OTHERWISE SPECIFIED</small> <small>ALL DIMENSIONS ARE IN INCHES</small> <small>TOLERANCES ARE:</small> <small>2 PLACE DECIMALS ±.03</small> <small>3 PLACE DECIMALS ±.015</small> <small>ANGLES ±.5°</small> </div> <div> <small>REV</small> <small>DATE</small> <small>BY</small> <small>REASON</small> </div> </div>				
	SCALE	DATE	BY	REV	DATE
	NONE	07/16	647.9300	N/C	

APICAL INDUSTRIES
 2608 TEMPLE HEIGHTS DR.
 OCEANSIDE, CA. 92056-3512 (760)724-5300

BRACKETS

102916



ORIGINAL DATE		2608 TEMPLE HEIGHTS DR.	
DESIGNED BY		OCEANSIDE, CA 92055-5512 (760)724-5300	
DRAWN BY		BRACKETS	
CHECKED BY		647.9300	
APPROVED BY		SCALE NONE	
UNLESS OTHERWISE SPECIFIED		SHEET 6 OF 9	
DIMENSIONS ARE IN INCHES			
TOLERANCES ARE			
3 PLACE DECIMALS ±.01			
ANGLES ±.5°			

Ottawa, Ontario
K1B 4S6

Phone # 613-899-2405

Packing Slip

Date	Invoice #
11/29/2013	761

Ship To
Main Finished Goods Location Dart Aerospace 1270 Aberdeen Street Hawksbury, Ontario K6A 1K7

P.O. No.	Ship	Via	FOB	Project
20439	11/29/2013	delivered	Archer	

Qty	Item Code	Description
9	Sales	647.9315P
1	Sales	647.9315P - Set-up Part
		HST (ON) on sales



2228 Gladwin Cres.
Ottawa, Ont.
K1B 4S6

Telephone (613) 899-2405
Fax (613) 226-1719

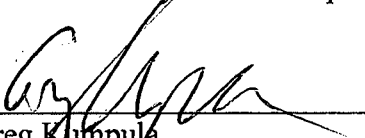
Certificate of Compliance

To:
Dart Aerospace Ltd.
1270 Aberdeen Street
Hawkesbury Ont.
K6A 1K7

29 November 2013

Po Number	Part Number	Quantities
20439	647.9615P	9

It is hereby certified that all articles mentioned above are in conformance with the requirements, specification and drawings as listed on customer purchase order number, 20439 issued by Dart Aerospace Inc.


Greg Klumpula
Quality Inspector
Archer Precision Inc.
2228 Gladwin Cress.
Ottawa, Ontario
K1B 4S6



Non Conformance Repot

Customer: Dart
Job/ PO# 20439
Part Number: 647.9315P
Description: Bracket
QTY: 10

QTY: 9
Customer Supplied Material: Yes
Pictures Attached: No

Work Order #:
Date: 29-Nov-13
Is the Part Identified: Yes

DESCRIPTION OF NONCONFORMANCE		
Item	Qty	
1	9	Small portion of thread marks on inner surface of dia .217" holes
CAUSE OF NONCONFORMANCE		
Item Ref.		
1	Holes where previously thread for attaching part to a fixture and the final machining operation did not completely remove the threads in these two locations.	
CORRECTIVE ACTION		
1	Refinement of machining process is ongoing.	
CUSTOMER DISPOSITION		
Item Ref.		

Inspector/ QA:

G KUMPULA

Date: 29-Nov-13

NCR#

31213B




Non Conformance Repot

Customer: Dart
Job/ PO# 20439
Part Number: 647.9315P
Description: Bracket
QTY: 10

Reject QTY: 1
Customer Supplied Yes
Material:
Pictures Attached: No

Work Order #:
Date: 29-Nov-13
Is the Part
Identified: Yes

DESCRIPTION OF NONCONFORMANCE		
Item	Qty	
1	1	Part out of dimensional specifications - Part gouged
CAUSE OF NONCONFORMANCE		
Item Ref.		
1		First part of batch – machine set up
CORRECTIVE ACTION		
1		Tool offsets adjusted for correct blending
CUSTOMER DISPOSITION		
Item Ref.		

Inspector/ QA: G.KUMPULA


Date: 29-Nov-13

NCR#

31213

Patrick Smith

From: Pablo Bravo
Sent: November-13-13 2:08 PM
To: Eric Downing
Cc: Patrick Smith; Nigel Forbes; Linda Lacelle
Subject: RE: 647.9315

Eric,
I think we can accept the parts as-is but let the vendor know that they need to provide a corrective action in the future.

Regards,

Pablo

From: Eric Downing
Sent: Wednesday, November 13, 2013 5:41 AM
To: Pablo Bravo
Cc: Patrick Smith; Nigel Forbes; Linda Lacelle
Subject: 647.9315
Importance: High

Good morning Pablo

Hope all is good in your part of the world. I have here at Dart Hawkesbury a little bit of a question for you and your team.

As you can see in the pictures I have the 647.9315 (Qty 26 pcs) with what appears to be a scoring from bolts used to locate and hold down the parts during machining by our outside vendor. On multiple parts have all the holes with it and some have only a few but all in the same locations.

My question is what can we do to accept these parts. Here at Dart Hawkesbury we can do the following

- Open the holes to a max size (you need to supply me with that size)
- Accept the parts as is
- Or scrap all parts

Pablo what is your opinion on what to do with these parts? Please send me your response as soon as you can.

Thanks a ton

Eric Downing
QC Coordinator
T: 1-613-632-5200 ext 223
C: 1-613-363-9375
F: 1-613-632-5246
www.dartaero.com
Edowning@Dartaero.com





A.T.G. Industries Inc.
731, rue Industrielle Rd.
PLATING DEPARTMENT
Rockland, On K4K 1T2
Canada

Ph: (613) 446-4544
Fax: (613) 446-4556

Pack List

Number: 62813

Date: 09-Jan-14

To

DART AEROSPACE LTD
1270 ABERDEEN ST.
HAWKESBURY, ON K6A 1K7
Canada

Ship To


DART AEROSPACE LTD
1270 ABERDEEN ST.
HAWKESBURY, ON K6A 1K7
Canada

Ph: 613-632-5200

Fax: 613-632-1185

Ph: 613-632-5200

Fax: 613-632-1185

Terms		Ship Via	
Quantity	Description	Rev:	
1 lot	Part: ASST		
	19 PCS 646.9910 (11.90\$)		
	9 PCS 647.9315 (14.35\$)		
	10 PCS 649.5010 (34.00\$)		
	13 PCS 649.5011 (11.75\$)		
	32 PCS 649.5012 (7.30\$)		
	34 PCS 649.5013 (11.60\$)		
	16 PCS 649.5212 (9.00\$)		
	16 PCS 649.5214 (9.00\$)		
	HARD ANODIZE BLACK MIL-A-8625 TYPE III CLASS 2		
	13 PCS D3229-7 (1.10\$)		
	16 PCS D3299-5 (1.15\$)		
	BLUE ANODIZE MIL-A-8625 TYPE II CLASS 2		
	PRICE IS PER PIECE		
	Job: 20140010	PO: 22353	Line:
Certificate of Conformance			
A.T.G. Industries certifies that all items in this shipment are in conformance with all requirements, specifications and drawings referenced in the purchase order.			
ISO 9001 : 2008 REGISTERED ATG SALES-2010 TERMS APPLY			
DATE: 9/1/14			
CERTIFIED SIGNATURE: 			
RECEIVER SIGNATURE: _____			